SBR No.91/20-21
DATED 30-1-2021

Original/Duplicate/Triplicate

CONTRACT CERTIFICATE

(For Other Works)

EE/ELE/Y/BR No.91/20-21
Dt.30-1-2021

No. 1st & Final bill
Date.....2010

Division: **Electrical (yelahanka)** Sub-Division: **Electricals**

Bill Received No. Dated Divisional Cash Book Voucher No..... Dated.....

Sub Divisional **Job Code :-009-20-000013**

Schedule Docket No. Head of Account : P-CODE:P 1771 D.R.No. :

Name of Work : *Providing Control boxes and switches No-09 Vidyaranyapura.*

Name of Contractor and Full Address: **M/s Chowdeshwari Electricals**

Reference to Agreement No:EE/Ele/YZ/WO/000032/19-20 Date:15/02/2020

Certified that the measurements were taken by me on 19/12/20 and recorded of Pages 256771 to 777 to of measurement Book No. 2562/19-20 and that the work is satisfactorily executed.

Contractor **Officer-in-charge of work**

Certified that the measurement were taken by me on 19/12/20 and found correct. The work is satisfactorily executed.

Certified that the quantities of materials shown in column 3 of Account have been actually brought to site of the work and the contractor has not previously received any advance on this security. These materials are of and imperishable nature and are all required for immediate use on the work in connection with items for finished work have been agreed upon. A normal agreement signed and executed by the contractor is recorded in the office.

Assistant Executive Engineer (Ele)
Sub-Division Officer
BBMP, Bangalore

II Memorandum of Payment

1)	Total value of work done or supplies made as per account within	Bill = 757426=00
2)	Deduct amount to be held in reserve being .....percent Rs.....	ITM 757H=00
3)	" Balance	WC 1% 757H=00
4)	Deduct Payment:	CBTO 1% 758=00
a)	Amount of previous payment as in the Office Cash Book Voucher No.....Dated.....S.D. No..... Amount adjusted towards cash advance recovery of	Scst 1% 6763=00
		Cust 1% 6763=00
b)	Payments Now made cost store or other material supplied. recovery of amount creditable to this/other work Amount paid on this bill Cheque / Cash.	deductions= 29432=00
		Cheque= 727994=00
5)	Balance being unpaid value of work done held in reserve.	
6)	Deduct cash advance made on the Office cash Book Voucher No..... dated.....less adjustments.	
7)	Net amount due to or from Contractor unadjustments items.	
8)	Advance to Contractor for materials brought to site (as detailed) within.	
9)	Value of Government materials supplied.	
	Total amount adjusted -	

Contractor's Signature

Received Rs..... (in words).....
.....
by cash and by adjustment of Payment as per memorandum
(in final settlement of all demands) (For use in the Office)

Witness
1.
2.

Dated Signature of Contractor

Stamp

Paid by me by Cheque No.....Dated.....
Cash Rs.....
Dated.....
Initials of Officer making payment

ಲೆಕ್ಕ ಶೀರ್ಷಿಕೆ P1771 ಪವರ್ ಮೇನ್ಟೆನೆನ್ಸ್
ರೂ: 757426=00 ಮಾತ್ರ ಪ್ರಸಾವಿಸಿದೆ
ರೂ: 727994=00 ಬಿಲ್ಲಿನ ಮೊತ್ತವನ್ನು
ರೂ: 29432=00 ಹೊಂದಾಣಿಕೆ ಮಾಡಿದೆ

Executive Engineer

ಲೆಕ್ಕ ಅಧೀಕ್ಷಕರು ಕಾ.ಮಾ.ಎ.(ವಿ) ಯಲಹಂಕ ಬೆಂಗಳೂರು

Sl. No	Description
	Name Of Work:- Providing Control boxes and switches No-09 Vidyaranyapura..
1	Supply and erection of .....Mtr RCC Pole including earth work etc,. complete as per the standard technical specification of BESCOM 9Mtr 145Kg WL
2	Supplying High pressure Sodium Vapour street light luminaire 250Watts suitable for use with high pressure Sodium Vapour lamp with integrated control gear & grey color power coated. The fitting shall be non corrosive pressure die cast aluminum housing with high purity anodized aluminum reflector with EPDM Gaskets suitable for Outer Dia of pole 40mm - 60mm. Cable Entry through a cable gland with toggle clips. IP65 Protection for both optical & Electrical Compartment. Bottom cover may be with Poly carbonate/tempered/ toughened glass. Luminaire efficiency should be >60% & ambient temperature > 35 deg C. High Intensity Discharge Electro Magnetic Ballast with Copper winding of Orthocyclic winding coil. Class H insulated dual coated copper wire. Compliance to IEC 61347-2-9 Safety & IEC 60923 - Performance. Winding Temperature for HID Ballast Tw = 130 deg C & temperature rise ?T = 70 deg C. Luminaire shall be suitable to operate on 230/250 Volts finish including wiring, suitable to operate on 230/250 Volts 50 Hz AC supply finish including wiring, ignitor, condenser. SS Toggles for opening front hingeable glass.
3	Supplying & fixing of 32 mm dia class A GI pipe bracket up to 2 mtrs long bent at suitable angle and fixing to this bracket 1x40/2x40 or rail or RCC pole/wall using suitable clamps, bolts, and nuts and wiring using suitable capacity wires complete. Using 32mm dia G.I pipe
4	Supply and Installation / Fixing / Provision of Pole box with HRC Fuse / MCB provision and suitable connector / terminal for 3 Ph / 1 Ph connections with Loop-In & Loop-Out terminals for 10 Sqmm / 25 Sqmm 3.5 C Al/Ar / Cu/Ar Cable and branch out 2.5 Sqmm 2 core Al/Cu PVC Insulated cable, enclosed in a Thermoplastic, Polystyrene enclosure, which should be shock proof, safe, IP65(Weather Proof), rust proof, dust proof, water proof having Internally Embedded Gasket with provision for cable entry through IP65 Thermoplastic, polyamide glands and/or grommets.200mmx200mmx98mm
5	260mmx210mmx116mm
6	Supplying and fixing Moulded Case Circuit Breaker (MCCB) over the existing wood/panel board using necessary screws, bolts, nuts and wiring complete. Protection of Overload and Short circuit with thermal Magnetic/Micro processor release and Earth Fault as per IS-13947. (Icu = Ics) THREE POLE 100Amps25kA.
7	Supplying tinned copper lugs and crimping and wiring to terminal point for wire of the following sizes.25 sqmm Long Barrel
8	Supplying and fixing angle iron frame work fabricated out of M.S angle iron... and M.S. flat... with bolts, washers etc., and painted with 2 coats of red oxide and then two coats of approved paint. a)50X50X6 mm
9	Supplying and stringing of ACSR Conductor (6/2.59mm Al +1/2.59mm Steel).
10	Supplying and Fixing .....including all Hardware's etc. complete as per the standard technical specification of BESCOM 1.1 KV Pin Insulator
11	No. 8 Strain Insulator
12	2 Pin 45x45x5mm -510mm
13	Supplay and Laying of 1.1KV Class HR (Heat Resistant) PVC Insulated & UnSheathed Aluminium Wires Multistrand Single core Lead wires as per IS694: 2010 PVC Wire - 25 Sqmm Al Wt: 6.7 Kgs, Total Wt: 11.5Kgs for 100Mtrs
14	Supplying heavy gauge PVC conduit pipe .....dia .....mm thick confirming to IS 2509 with suitable size bends, junction boxes, adhesive paste etc., and fixing using inverted wood plugs in case of RCC ceiling and RCC wall / stone structure or rawl plugs in case of brick walls and cement plastering the damaged portion using heavy gauge saddles at an interval of 700mm using NF screws.25mm dia 2mm thick
15	Supplying of 1.1 KV LT UG cable having aluminum conductor PVC insulated, extruded inner sheathed, galvanized, steel strip (except 2CX10Sq.mm wire armoured) confirming to IS-3975:1990 (No. of Strip indicated in GTP) & extruded PVC outer sheathed armoured cable with specified IS-1554 Part-1:1988 & confirming to GTP of GROUP-A. 3.5 core 25 sqmm
16	3.5 core 50 sqmm
17	Labour charges for laying of 1.1 KV class UG cable in existing trench GI pipe / stoneware pipe / on wall / on pole as required.In existing trench/duct.25 sqmm to 75 sqmm
18	Digging of trench of 0.6m deep x 0.50 mtr wide refilling the trench to the required ground level and consolidating etc., complete.(As per Civil SR KSRB I-2, P-7)In soil (ordinary)

Unit	Previous Measurement		Present Measurement			Total Upto Date		Remarks
	Qty	Cost	Qty	Rate	Amount	Qty	Cost	
Nos			5	6262.62	31313.1	5	31313.1	
Nos			7	2800.00	19600	7	19600	
Nos			7	500.00	3500	7	3500	
Nos			22	1698.84	37374.48	22	37374.48	
Nos			24	1820.52	43692.48	24	43692.48	
Nos			24	3154.32	75703.68	24	75703.68	
Nos			80	16.06	1284.8	80	1284.8	
Mtrs			50	205.14	10257	50	10257	
Mtrs			1995	23.04	45964.8	1995	45964.8	
Nos			64	34.32	2196.48	64	2196.48	
Nos			40	10.92	436.8	40	436.8	
Nos			58	238.68	13843.44	58	13843.44	
Per Mtr			394	25.20	9928.8	394	9928.8	
Per Mtr			121	54.60	6606.6	121	6606.6	
Mtrs			1248	129.09	161104.32	1248	161104.32	
Mtr			70	206.70	14469	70	14469	
Mtrs			1318	12.64	16659.52	1318	16659.52	
Mtrs			600	60.84	36504	600	36504	

19	Supplying and fixing of class A (medium duty) GI pipe of wall thickness not less than 3.25mm on pole/wall/drain crossing with necessary clamping arrangements for UG cable of 1.1 KV.40mm
20	50mm
21	Supplying and fixing L.T. cast Iron pot heads suitable for 1.1 KV class UG cable filled with necessary bitumen/insulating compound complete with terminals, clamps, bolts, nuts and washers etc.25Sqmm
22	50Sqmm
23	Fabricating supplying and mounting MS box made out ... SWG suitable for floor / wall mounting, fully weather proof with provision for better heat dissipation, provided with hinged front cover, equipped with tamper proof locking arrangements, with suitable size clamps with necessary cable entry pipe with gland and box should be finished with 2 coats of red oxide primer paint and finally finished with approved colour enameled metal paint etc., complete.16SWG
24	Supply and fixing of 4pole power contactor with NO/NC contacts on existing wood/panel board using necessary bolts, nuts, washers and wiring etc., complete with AC-3 Rating and as per IS-13947.100-125Amps
25	Supplying and fixing phylum brand hand plastic sheet 3mm thick with necessary niches for fixing switches, regulators etc., and fixing on exisiting wood or metal box using N.F.screws
26	Supplying and fixing miniature circuit breakers on existing MCB distribution boards using necessary fixing materials and 'C' Type curve, indicator ON/OFF, energy cross-3 with Short circuit breaking capacity of 10K and complete wiring as required confirming to IEC 60898.40-63 Amps SP
27	40-63Amps TPN
28	Supplying and fixing electro mechanical timer (without contactor) using necessary bolts, nuts and waqshers etc.. Group A, PWD Elec SR 2006-07.
29	Wiring for lighting/power circuit using one of PVC insulated 1100v grade, multis and **Copper** conductor single core cable in open or consealed system of wiring.I Group A Materials.g)16 sqmm
30	1.5 sqmm
31	Supplying, fixing, wiring, earth electrode for grounding conduits, I.C. cutouts and other equipment's on the meter board using 40mm dia 2.90mm thick GI pipe 2.5 mtr long buried in a pit ... The pit should be filled with equal proportion of salt and charcoal 150mm all-round the pipe to complete depth. The connection from the pipe to the conduit etc., is to be established through GI wire of size as per ISI specification 7.3.3. of IS 732 using 12mm dia bolts, nuts, washers and check nuts etc., the pipe shall have 16 through holes of 122 mm dia
32	Supplying and fixing of Procelain fuse channel with cut out on exisiting wooden/panel using necessary nuts, bolts and washers etc., complete.d) 100 Amps
33	Painting of existing street light pole after scrapping the old paint and painted with suitable colour enamel/Silver paint including coping/footing of the pole .Upto 5Mtr street light pole.
34	KSRB 4-1 .1: Providing and laying in position plain cement concrete of cum 5,004.00 mix 1 :2:4 with ope cement @ 240kgs, with 40mm and down size graded granite metal coarse aggregates @O.B7Bcum and fine aggregates @ 0.459cum machine mixed, concrete laid in layers not exceeding 15 cms. thick, well compacted, in foundation, including cost of all materials, labour, HOM of machinery, curing complete as per specifications Specification No. KBS 4.1, 4.2
35	**Thiristor based single/ Three phase smart street light control and monitoring system** Remotely control and and monitorable smart street light system by using web or mobile application .smart control system has hardware ruggedness over field issues like line cross, line short, lighting and any other irregularities in voltage. It has some features like 1.Remote lighting management.2.Precise lighting turnoff.3.Load ballancing.4.Load power regulation.5.Status tracking. It works on the basis of some of these features 1) Main Control Unit (Mother board) : Handles controlling , data handling and other communication process. 2) Communication unit: GSM/GPRS quad bandwith RS232 interface wireless communication unit 3) Gate Driver Unit: Firing angle controllable board for driving the thyristor 4) Switching Thyristor: SCR 110 AMPS dual thyristor modules for switching 5) Embedded Firmware: Firmware to control , handle , process the data and communicate it wirelessly.6) Metal Enclosure : IP66 weather prof metal enclosure.7) Transformers: Customized step down transformers for various purposes.8) Wiring and other device assembly components.
	Total Rs

Certificate: 1. Certefied that the Above Work has been carreid out satisfactorily

Assistant Executive Engineer (Ele),
BBMP, Bangalore

			86	269.10	23142.6	86	23142.6	
Mtr			4	304.98	1219.92	4	1219.92	
Nos			1	282.36	282.36	1	282.36	
Nos			2	496.86	993.72	2	993.72	
Sqcms			69525	0.26	18076.5	69525	18076.5	
Nos			2	7733.70	15467.4	2	15467.4	
Sqcms			15000	0.17	2550	15000	2550	
Nos			10	528.06	5280.6	10	5280.6	
Nos			2	1510.08	3020.16	2	3020.16	
Nos			2	3276.00	6552	2	6552	
Mtrs			20	102.96	2059.2	20	2059.2	
Mtrs			696	12.40	8630.4	696	8630.4	
Nos			2	2127.06	4254.12	2	4254.12	
Nos			6	280.80	1684.8	6	1684.8	
Nos			24	390.00	9360	24	9360	
Cumt			1	3903.12	3903.12	1	3903.12	
Nos			3	40170.00	120510	3	120510	
					757426.20		757426.20	